

Amendments to the Claims

Please note that "strikeout" matter is shown with larger-than-normal italic letters containing the strikeout horizontal marks such as in this example: *~~strikeout~~*.

Claim 1. (Cancelled)
Claim 2. (Cancelled)
Claim 3. (Cancelled)
Claim 4. (Cancelled)
Claim 5. (Cancelled)
Claim 6. (Cancelled)
Claim 7. (Cancelled)
Claim 8. (Cancelled)
Claim 9. (Cancelled)
Claim 10. (Cancelled)
Claim 11. (Cancelled)
Claim 12. (Cancelled)
Claim 13. (Cancelled)
Claim 14. (Cancelled)
Claim 15. (Cancelled)
Claim 16. (Cancelled)
Claim 17. (Cancelled)
Claim 18. (Cancelled)
Claim 19. (Cancelled)
Claim 20. (Cancelled)
Claim 21. (Cancelled)
Claim 22. (Cancelled)
Claim 23. (Cancelled)
Claim 24. (Cancelled)

Claim 25. (Currently amended) An electrode for penetration into tissues which includes a coating having at least one static layer of *~~electrode~~* releasable molecules to be delivered into biological cells in the penetrated tissues by an applied electric field.

Claim 26. (Original) A plurality of electrodes of claim 25 which form an electrode assembly.

Claim 27. (Cancelled)

Claim 28. (Currently amended) The electrode assembly of claim 26
27 wherein said plurality of electrodes are arranged in at
least two parallel rows of electrodes and wherein said parallel
rows of electrodes include needle electrodes.

Claim 29. (Currently amended) The electrode of claim 25 wherein
said molecules in said static layer coating are in a solid
phase.

Claim 30. (Currently amended) The electrode of claim 25 wherein
said molecules in said static layer coating are in a gel.

Claim 31. (Currently amended) The electrode of claim 25 wherein
said electrode includes a fixed electrode surface which is coated
with said static layer of electrode releasable
molecules.

Claim 32. (Cancelled)

Claim 33. (Cancelled)

Claim 34. (Cancelled)

Claim 35. (Cancelled)

Claim 36. (Cancelled)

Claim 37. (Currently amended) The electrode of claim 25 wherein said molecules in said static layer coating are macromolecules.

Claim 38. (Currently amended) The electrode of claim 37 25 wherein said macromolecules in said static layer coating include a polynucleotide vaccine.

Claim 39. (Cancelled)

Claim 40. (Currently amended) The electrode of claim 37 25 wherein said macromolecules in said static layer coating include a DNA vaccine.

Claim 41. (Cancelled)

Claim 42. (Currently amended) The electrode of claim 37 25 wherein said macromolecules in said static layer coating include an RNA vaccine.

Claim 43. (Cancelled)

Claim 44. (Currently amended) The electrode of claim 37 25 wherein said macromolecules in said static layer coating include a protein-based vaccine.

Claim 45. (Cancelled)

Claim 46. (Cancelled)

Claim 47. (Currently amended) The electrode of claim 46 25 wherein said macromolecules in said static layer include an organ treating agent and wherein said organ treating agent includes a deep tissue tumor treating agent.

Claim 48. (Original) The electrode of claim 25 which is in a form of a needle electrode.

Claim 49. (Original) The electrode of claim 25, wherein coating of said electrode with said static layer of molecules to be delivered to the biological cells is carried out by the following steps:

preparing a liquid medium in which a quantity of said molecules are carried,

contacting said electrode with the prepared medium, and

removing said electrode from the medium and drying off the medium, such that a static coating of said molecules remains on said electrode.

Claim 50. (Original) The electrode of claim 25 wherein coating of said electrode with said static layer of molecules to be delivered to the biological cells is carried out by the following steps:

preparing a liquid medium in which a quantity of said molecules are carried,

contacting said electrode with the prepared medium,

applying pulse waveforms to said electrode, such that a portion of said molecules are bound to said electrode, and

removing said electrode from the medium and drying off the medium, such that a coating of said molecules remains on said electrode.

Claim 51. (Cancelled)

Claim 52. (New) An electrode for penetration into tissues which includes a coating having at least one static layer of solvent releasable molecules to be delivered into biological cells in the penetrated tissues by an applied electric field.